ABSTRACT

The invention relates to a far-end crosstalk canceling circuit for a digital subscriber line transmission system, the transmission system comprising a plurality of line termination modems transmitting discrete multitone symbols Si to corresponding network termination modems over n transmission channels.

The invention multiplies the vector S = (Si) i = 1 to n, before transmission, by a precompensation matrix M such that the matrix product H*M is diagonal, H being the transfer matrix of the plurality of downstream transmission channels defined by R = H*S where R = (Ri), i = 1 to n, is the vector of the discrete multitone symbols Ri respectively received by the modems.